## Conference Note The Eastern Himalaya: Climate Change, Livelihoods and Poverty

Centre for North East Studies and Policy Research Jamia Millia Islamia, New Delhi March 7-8, 2013

New Delhi -- Climate Change in the Eastern Himalaya will lead to significantly warmer temperatures in the North East of India and its neighbourhood, placing increasing existing stress on human relations, as well as ecosystems including wildlife and fish, agriculture and water resources, an International Conference on the issue says.

Health hazards are also likely to increase as the ice and snow retreat in the 'water towers' of Asia, the Himalaya Range and the Tibetan Plateau, while the frequency of longer drought periods, forest fires and shorter but more intense stretches of heavy rain and floods are predicted, said experts and participants in the March 7-8, 2013, Conference, 'The Eastern Himalaya: Climate Change, Livelihoods and Poverty' at Jamia Millia Islamia, New Delhi.

A senior official of the Indian Government's Environment Ministry said that while forest-dependent communities needed to be involved in their management, there was also the issue of capacity and utilization of Central funds for major programmes. The official, RR Rashmi, Joint Secretary in the Ministry, noted that Rs. 15,000 crore Central funds remained unused from forestry compensation. Mr. P. D. Rai, Member of Parliament, Lok Sabha from Sikkim also went on to stress the need for the government to play a greater role in the issue of climate change and adaptability. "There should be more dialogue between research groups and the government to develop a climate friendly and gender sensitive state and public policy."

The conference was organized by the University's Centre for North East Studies and Policy Research and drew over 100 persons, including resource persons from across the Eastern Himalaya, including Nepal, Bhutan and Bangladesh as well as the North-east, Thailand, the UK, the US and France. While many of the presentations looked at specific problems within the region, they also stressed the need for a participatory, inclusive approach to deal with the growing crisis by involving communities through better dissemination and capacity building instead of a top-down approach by governments.

Mr. Kanak Mani Dixit, founder and editor of Himal Southasian Magazine linked the issues of Southeast Asia and the Northeast in terms of climate change and identities. He went on to emphasize, "There is a need to properly channelize available funds to cope and adapt to the changing environment." The increase in black carbon emissions has had had a detrimental impact on the mountains leading to receding glacier mass and snow lines and there is a need for greater rigour in research.

Those working in the health sector said warmer weather has meant more vector-borne ailments such as dengue, encephalitis and malaria, the emergence of new pests and pathogens and that the incidence of water and food-borne diseases could also grow.

Speakers expressed concern over how additional pressure on resources could sharpen existing tensions between communities and groups in the region over resource management and control,

posing a fresh non-conventional security threat in a place like the North-East which has seen extensive conflict over political and other issues. The poor, with little adaptive resilience, would be most vulnerable

Agriculture would suffer the most: 80 percent of the region's population is farm-based. Speakers cited the failure of Sikkim's primary cash crop, the large cardamom, as an example. "High temperatures from June to August invited many diseases in the field" while "fluctuating and torrential rainfall" also caused poorer yields. A surge in forest fires is also predicted as is loss of agricultural land, hit by flash floods and landslides in the hills, and soil fertility below. There had also been an increase in the mean minimum temperature in Sikkim, which has also witnessed a decline of spring water availability especially in the dry season. Weather pattern has changed drastically with earlier summers and delayed monsoons, impacting pastoral patterns of indigenous people in the region.

Although an eco-friendly country like Bhutan contributes the least to global warming, the conference asserted that it too was seriously affected by the climate change.

Warmer weather has led to the north-ward migration of species and ecosystems across the region as well as pests and diseases while shallower water levels, for example, in the Brahmaputra, caused by continuing silt and sand deposits, is also forcing large mammals like the Gangetic dolphin to move to deeper 'ponds' within river systems, the conference said.

Specialists and others urged Governments, scientists, scholars, NGOs and media need to "stop talking in silos" and take an inclusive approach that would reach the most vulnerable. The steady growth in vulnerability in Bangladesh's coastal and central areas to climate change, including tidal surges in the low-lying deltaic regions, was cited by a scholar from Dhaka as leading to the loss of livelihoods and "slowly triggering displacement and internal migration".

Among the predictions are that in the short term of 20-to-40 years, the states of Assam, Meghalaya, Sikkim and Arunachal Pradesh as expected to receive "much less monsoon precipitation" while rainfall is likely to increase in Tripura, Mizoram, Manipur and Nagaland.

"Most of the districts in the central and northern parts of North-east region are projected to experience increased drought weeks," said Dr. Ruth Kattumuri, Co-Director of India Observatory and Asia Research Centre at the London School of Economics (LSE India Laboratory). Dr. Kattumari also noted that not less than 10 districts in eight states (including two each in Arunachal and Meghalaya) were classified by a study as Most Vulnerable over a 30-to- 40 year period. The Least Vulnerable in the same timeframe in the states included Cachar in Assam, Tamenglong and Ukhrul in Manipur and East Siang in Arunachal.

Specialists said that in the areas of developing adaptation, mitigation and coping mechanisms, experience had shown that it was essential to have diverse resource portfolios (such as a wide range of crops) which would improve resilience. An integrated water resources management strategy at different levels of usage, from households to local communities and watershed to catchments areas was also emphasized.

Citing best practises which were functioning across the Himalaya region, speakers stressed the need for improving market linkages and extension services for livestock care as well as the promotion of

community seed banks which could play a key role at times of erratic rainfall. However, researchers said that the lack of extensive data is a problem as is the lack of cooperation across national boundaries.

This assumes importance in the light of the need to disseminate information extensively and comprehensively to vulnerable communities, which most needed to understand adaptation and coping opportunities. Such information should be developed and conveyed in their own languages.

Dissemination through effective partnerships between stakeholders, institutions, community organizations, civil society groups and the media was seen as another critical element as most local governments—and media -- had limited financial capacity and were not adequately aware of climate change issues.

It is proposed that such collaborative, interactive programmes can be designed and developed by various scholars and institutions in partnership with the Centre for North East Studies and Policy Research, at Jamia Millia Islamia, New Delhi, which initiated this Conference, through the University framework and network. It was noted that the sessions drew scholars and representatives from different disciplines in a robust and packed exchange but also attracted many students and faculty.

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